

**CLAIMS**

1. Structured composition containing at least one liquid fatty phase comprising at least one fluoro oil, the liquid fatty phase being structured with at least one polymer with a weight-average molecular mass of less than or equal to 100 000, comprising a) a polymer skeleton having hydrocarbon-based repeating units containing at least one hetero atom, and b) optionally pendent and/or terminal fatty chains that are optionally functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units, the liquid fatty phase and the polymer forming a physiologically acceptable medium.

15 2. Composition according to Claim 1 or 2, characterized in that the average molar mass of the first polymer is less than or equal to 50 000.

3. Composition according to either of the preceding claims, characterized in that the hetero atom-containing units of the first polymer comprise a nitrogen atom.

20 4. Composition according to one of the preceding claims, characterized in that the units containing a hetero atom are amide groups.

25 5. Composition according to one of the preceding claims, characterized in that the fatty

chains represent from 40% to 98% of the total number of units containing a hetero atom and of fatty chains.

6. Composition according to one of the preceding claims, characterized in that the fatty 5 chains represent from 50% to 95% of the total number of units containing a hetero atom and of fatty chains.

7. Composition according to one of the preceding claims, characterized in that the pendent fatty chains are linked directly to at least one of the 10 said hetero atoms.

8. Structured composition containing at least one liquid fatty phase comprising at least one fluoro oil, the liquid fatty phase being structured with at least one polyamide with a weight-average 15 molecular mass of less than or equal to 100 000, comprising a) a polymer skeleton containing amide repeating units and b) optionally pendent and/or terminal fatty chains that are optionally functionalized, containing from 6 to 120 carbon atoms 20 and being linked to these amide units, the liquid fatty phase and the polymer forming a physiologically acceptable medium.

9. Composition according to the preceding claim, characterized in that the fatty chains represent 25 from 40% to 98% of the total number of amide units and of fatty chains.

10. Composition according to Claim 8 or 9,  
characterized in that the fatty chains represent from  
50% to 95% of the total number of amide units and of  
fatty chains.

5 11. Composition according to one of Claims 8  
to 10, characterized in that the pendent fatty chains  
are linked directly to at least one of the nitrogen  
atoms of the amide units.

12. Composition according to one of the  
10 preceding claims, characterized in that the weight-  
average molar mass ranges from 2 000 to 20 000 and  
better still from 2 000 to 10 000.

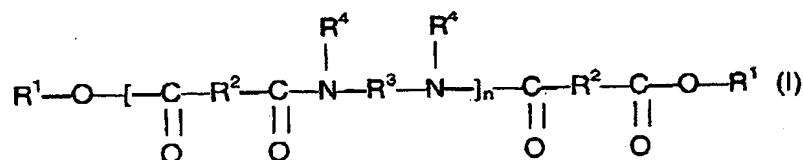
13. Composition according to one of the  
preceding claims, characterized in that the terminal  
15 fatty chains are linked to the skeleton via bonding  
groups.

14. Composition according to Claim 13,  
characterized in that the bonding groups are ester  
groups.

20 15. Composition according to one of the  
preceding claims, characterized in that the fatty  
chains contain from 12 to 68 carbon atoms.

16. Composition according to one of the  
preceding claims, characterized in that the polymer is  
25 chosen from the polymers of formula (I) below, and  
mixtures thereof:

50



in which n denotes a number of amide units such that the number of ester groups represents from 10% to 50%

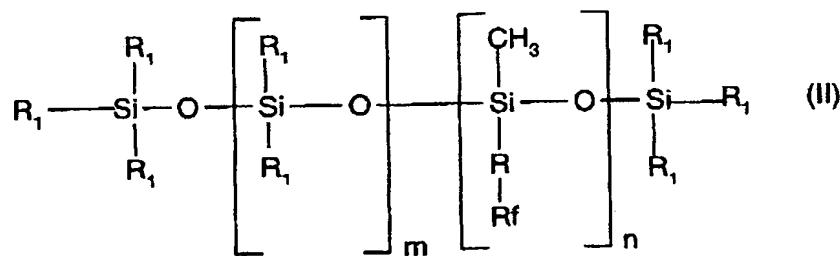
5 of the total number of ester and amide groups; R<sup>1</sup> is, independently in each case, an alkyl or alkenyl group containing at least 4 carbon atoms; R<sup>2</sup> represents, independently in each case, a C<sub>4</sub> to C<sub>42</sub> hydrocarbon-based group, on condition that 50% of the groups R<sup>2</sup>  
10 represent a C<sub>30</sub> to C<sub>42</sub> hydrocarbon-based group; R<sup>3</sup> represents, independently in each case, an organic group containing at least 2 carbon atoms, hydrogen atoms and optionally one or more oxygen or nitrogen atoms; and R<sup>4</sup> represents, independently in each case, a  
15 hydrogen atom, a C<sub>1</sub> to C<sub>10</sub> alkyl group or a direct bond to R<sup>3</sup> or to another R<sup>4</sup>, such that the nitrogen atom to which R<sup>3</sup> and R<sup>4</sup> are both attached forms part of a heterocyclic structure defined by R<sup>4</sup>-N-R<sup>3</sup>, with at least 50% of the groups R<sup>4</sup> representing a hydrogen atom.

20 17. Composition according to the preceding claim, characterized in that R<sup>1</sup> is a C<sub>12</sub> to C<sub>22</sub> alkyl group.

18. Composition according to either of Claims 16 and 17, characterized in that the groups R<sup>2</sup>  
25 are groups containing from 30 to 42 carbon atoms.

19. Composition according to one of the preceding claims, characterized in that the polymer represents from 0.5% to 80% of the total weight of the composition and better still from 5% to 40%.

5 20. Composition according to any one of the preceding claims, characterized in that the fluoro oil is a fluorosilicone compound of formula (II):



10

in which:

- R represents a linear or branched divalent alkyl group containing 1 to 6 carbon atoms, preferably a divalent methyl, ethyl, propyl or butyl group,

15 - Rf represents a fluoroalkyl radical, especially a perfluoroalkyl radical, containing 1 to 9 carbon atoms, preferably 1 to 4 carbon atoms,

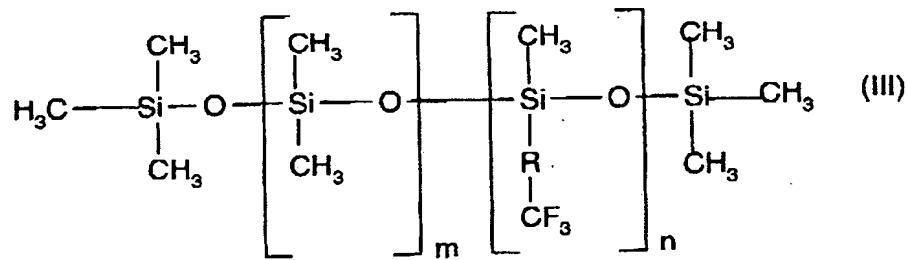
- R1 represents, independently of each other, a C1-C20 alkyl radical, a hydroxyl radical or a phenyl radical,

20 - m is chosen from 0 to 150 and preferably from 20 to 100, and

- n is chosen from 1 to 300 and preferably from 1 to 100.

21. Composition according to Claim 20,  
characterized in that the groups R<sub>1</sub> are identical and  
represent a methyl radical.

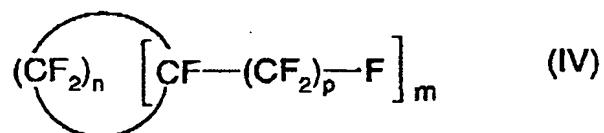
22. Composition according to any one of the  
5 preceding claims, characterized in that the fluoro oil  
is a fluorosilicone compound of formula (III) below:



10 with

- R representing a divalent methyl, ethyl, propyl or butyl group,
- m being chosen from 0 to 80, and
- n being chosen from 1 to 30.

15 23. Composition according to any one of the preceding claims, characterized in that the fluoro oil is chosen from the perfluorocycloalkyls of formula (IV) below:

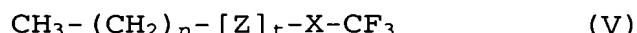


in which n is equal to 4 or 5, m is equal to 1 or 2, and p is equal to 1, 2 or 3;

with the proviso that when g = 2, the groups are not necessarily alpha to each other.

5        24. Composition according to Claim 23, characterized in that the fluoro oil is chosen from perfluoromethylcyclopentane and perfluorodimethylcyclobutane.

10      25. Composition according to any one of the preceding claims, characterized in that the fluoro oil is chosen from the fluoroalkyl and heterofluoroalkyl compounds corresponding to formula (V) below:



15      in which t is 0 or 1; n is 0, 1, 2 or 3; X is a linear or branched divalent perfluoroalkyl radical containing from 2 to 5 carbon atoms, and Z represents O, S or NR, R being hydrogen, a radical  $-(\text{CH}_2)_n-\text{CH}_3$  or  $-(\text{CF}_2)_m-\text{CF}_3$ , m being 2, 3, 4 or 5.

20      26. Composition according to Claim 21, characterized in that the fluoro oil is chosen from methoxynonafluorobutane and ethoxynonafluorobutane.

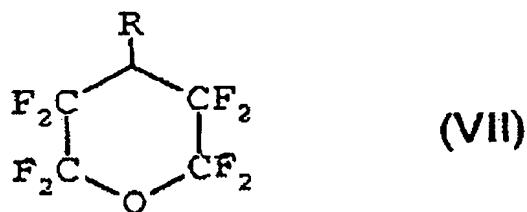
25      27. Composition according to any one of the preceding claims, characterized in that the fluoro oil is chosen from the perfluoroalkane compounds corresponding to formula (VI) below:



in which n is 2 to 6.

5        28. Composition according to Claim 27,  
characterized in that the fluoro oil is chosen from  
dodecafluoropentane and tetradecafluorohexane.

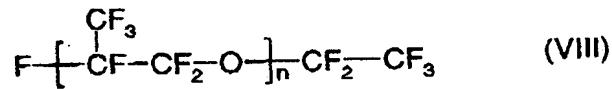
10      29. Composition according to any one of the  
preceding claims, characterized in that the fluoro oil  
is chosen from the perfluoromorpholine derivatives  
corresponding to formula (VII) below:



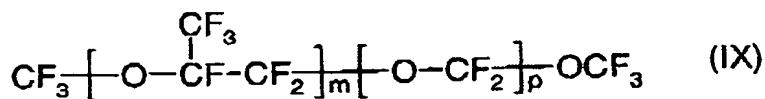
15      in which R represents a C<sub>1</sub>-C<sub>4</sub> perfluoroalkyl radical.

30.      Composition according to Claim 29,  
characterized in that the fluoro oil is chosen from 4-  
trifluoromethylperfluoromorpholine and 4-pentafluoro-  
ethylperfluoromorpholine.

20      31. Composition according to any one of the  
preceding claims, characterized in that the fluoro oil  
is chosen from the perfluoropolyethers corresponding to  
formulae (VIII) and (IX) below:



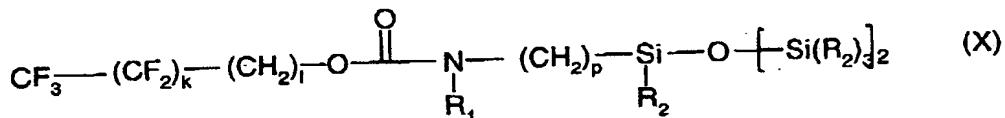
in which n is 7 to 30; and



5

the ratio m/p being from 20 to 40, and the molecular weight ranging from 500 to 20 000.

32. Composition according to any one of the preceding claims, characterized in that the fluoro oil is chosen from the fluorosilicone compounds corresponding to formula (X) below:



15

in which k is 1 to 17, l is 1 to 18, p is 1 to 6 and R<sub>1</sub> represents a hydrogen atom or a C<sub>1</sub>-C<sub>6</sub> alkyl radical; R<sub>2</sub> represents a C<sub>1</sub>-C<sub>6</sub> alkyl radical or a radical -OSi(R<sub>3</sub>)<sub>3</sub>, and R<sub>3</sub> represents a C<sub>1</sub>-C<sub>4</sub> alkyl radical.

20 33. Composition according to Claim 32,

characterized in that the fluoro oil is chosen from:

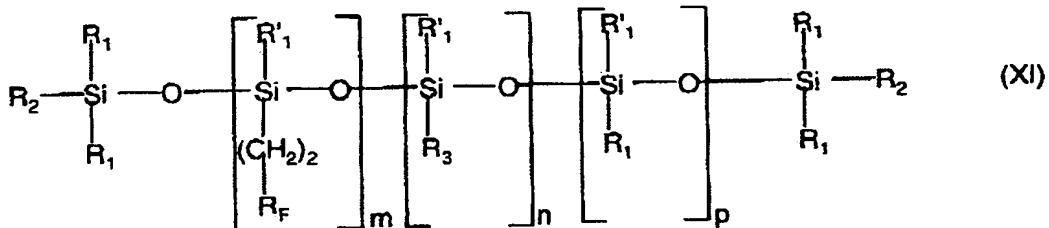
- N-(2-F-octylethyoxy carbonyl)-3-

aminopropylbis(trimethylsiloxy)methylsilane,

- N-(2-F-hexylethoxy carbonyl)-3-aminopropyl bis(trimethylsiloxy)methylsilane,
- N-(2-F-butylethoxy carbonyl)-3-aminopropyl bis(trimethylsiloxy)methylsilane,
- 5 - N-(2-F-octylethoxy carbonyl)-3-aminopropyl tris(trimethylsiloxy)silane,
- N-(2-F-hexylethoxy carbonyl)-3-aminopropyl tris(trimethylsiloxy)silane, and
- N-(2-F-butylethoxy carbonyl)-3-
- 10 aminopropyl tris(trimethylsiloxy)silane.

34. Composition according to any one of the preceding claims, characterized in that the fluoro oil is chosen from the fluoroalkylsilicones corresponding to formula (XI) below:

15



in which R<sub>1</sub> and R'<sub>1</sub> independently represent a linear or branched alkyl radical containing from 1 to 6 carbon  
 20 atoms, or a phenyl radical, R<sub>2</sub> represents R<sub>1</sub>, -OH or -(CH<sub>2</sub>)<sub>f</sub>-R<sub>F</sub>, f being an integer ranging from 0 to 10,  
 R<sub>3</sub> represents a linear or branched alkyl radical containing from 6 to 22 carbon atoms,

$R_F$  represents a radical of formula  $-(CF_2)_q-CF_3$ ,  $q$  being an integer ranging from 0 to 10,

$m$  and  $n$  represent an integer ranging from 1 to 50, and  $p$  represents an integer ranging from 0 to 2 000.

5           35. Composition according to Claim 34,

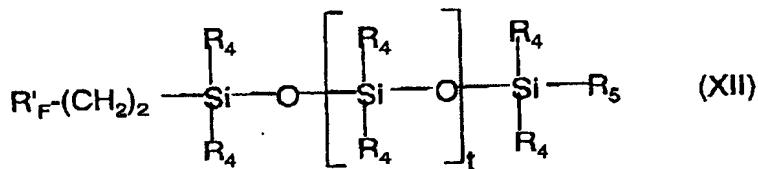
characterized in that

$R_1$ ,  $R'_1$  and  $R_2$  represent a methyl radical,

$R_3$  represents a linear alkyl radical containing from 6 to 22 carbon atoms,

10    $m$  and  $n$  are integers ranging from 1 to 20, and  $q$  is an integer ranging from 1 to 13.

36. Composition according to any one of the preceding claims, characterized in that the fluoro oil is chosen from the fluoroalkylsilicones corresponding 15 to formula (XII) below:



in which:

20    $R_4$  represents a linear or branched alkyl radical containing from 1 to 6 carbon atoms, or a phenyl radical,

$R_5$  represents a linear or branched alkyl radical containing from 6 to 22 carbon atoms, or a phenyl radical,

R'<sub>F</sub> represents a radical of formula -(CF<sub>2</sub>)<sub>s</sub>-CF<sub>3</sub>, s being an integer ranging from 0 to 15, and t represents an integer ranging from 1 to 2 000.

37. Composition according to any one of the 5 preceding claims, characterized in that R<sub>4</sub> represents a methyl radical, R<sub>5</sub> represents a linear alkyl radical containing from 6 to 22 carbon atoms and s represents an integer ranging from 1 to 13.

38. Composition according to any one of the 10 preceding claims, characterized in that the fluoro oil is present in a content ranging from 0.1% to 50% by weight, relative to the total weight of the composition, preferably ranging from 1% to 30% by weight and better still from 3% to 15% by weight.

15 39. Composition according to one of the preceding claims, characterized in that it comprises an additional oil, other than the said fluoro oil.

40. Composition according to Claim 39, characterized in that the additional oil is a volatile 20 oil.

41. Composition according to Claim 39 or 40, characterized in that the additional oil is chosen from volatile hydrocarbon-based oils containing from 8 to 16 carbon atoms, and mixtures thereof.

25 42. Composition according to one of Claims 39 to 41, characterized in that the additional oil is

chosen from branched C<sub>8</sub>-C<sub>16</sub> alkanes and branched C<sub>8</sub>-C<sub>16</sub> esters, and mixtures thereof.

43. Composition according to one of Claims 39 to 42, characterized in that the additional oil 5 is chosen from C<sub>8</sub>-C<sub>16</sub> isoparaffins and isododecane, and mixtures thereof.

44. Composition according to one of the preceding claims, characterized in that the liquid fatty phase also contains at least one additional non-10 volatile oil, other than the said fluoro oil.

45. Composition according to one of the preceding claims, characterized in that the liquid fatty phase also contains at least one additional non-volatile oil chosen from hydrocarbon-based oils of 15 mineral, plant or synthetic origin, synthetic esters or ethers and silicone oils, and mixtures thereof.

46. Composition according to one of Claims 39 to 46, characterized in that the additional volatile or non-volatile oil represents a content by mass of 20 from 5% to 97.5%, preferably from 10% to 75% and better still from 15% to 45%.

47. Composition according to one of the preceding claims, characterized in that the liquid fatty phase contains at least 40% of apolar oil 25 relative to the total weight of the liquid fatty phase, and better still from 50% to 100% relative to the total weight of the liquid fatty phase.

48. Composition according to one of the preceding claims, characterized in that the liquid fatty phase represents from 5% to 99% of the total weight of the composition, and better still from 20% to 5 75%.

49. Composition according to one of the preceding claims, characterized in that it constitutes a care composition and/or treatment composition and/or make-up composition for keratin materials.

10 50. Composition according to one of the preceding claims, characterized in that it also contains at least one dyestuff.

51. Composition according to Claim 50, characterized in that the dyestuff is chosen from 15 lipophilic dyes, hydrophilic dyes, pigments and nacres, and mixtures thereof.

52. Composition according to Claim 50 or 51, characterized in that the dyestuff is present in a proportion of from 0.01% to 50% relative to the total 20 weight of the composition, and preferably from 5% to 30%.

53. Composition according to one of the preceding claims, characterized in that it contains at least one additive chosen from water, antioxidants, 25 essential oils, preserving agents, fragrances, fillers, waxes, fatty compounds that are pasty at room temperature, neutralizers, polymers that are

liposoluble or dispersible in the medium, cosmetic or dermatological active agents and dispersants, and mixtures thereof.

54. Composition according to one of the  
5 preceding claims, characterized in that it contains at least one polymer that is liposoluble or dispersible in the medium, chosen from vinylpyrrolidone copolymers and C<sub>3</sub> to C<sub>22</sub> alkene copolymers, and combinations thereof.

55. Composition according to one of the  
10 preceding claims, characterized in that it is in the form of a rigid gel, and especially in the form of an anhydrous stick.

56. Composition according to one of the  
preceding claims, characterized in that it is in the  
15 form of a mascara, an eyeliner, a foundation, a  
lipstick, a blusher, a deodorant product, a make-up-  
removing product, a body make-up product, an eye  
shadow, a face powder, a concealer product, a shampoo,  
a conditioner, an antisun product, a bodycare product  
20 or a facial care product.

57. Composition according to one of the  
preceding claims, characterized in that it is in the  
form of a stick with a hardness ranging from 30 to  
300 g.

25 58. Lipstick composition in stick form  
containing at least one liquid continuous fatty phase  
comprising at least one fluoreal oil, the liquid fatty

phase being structured with at least one non-waxy polymer giving the composition the appearance of an elastic deformable solid with a hardness ranging from 30 to 50 g, in the absence of wax.

5           59. Composition according to Claim 58, characterized in that it also comprises at least one additive chosen from fatty compounds that are pasty at room temperature, liposoluble polymers, and mixtures thereof.

10          60. Cosmetic process for caring for, making up or treating human keratin materials, comprising the application to the keratin materials of a cosmetic composition in accordance with one of the preceding claims.

15          61. Use of a liquid fatty phase containing a fluoro oil and of at least one polymer with a weight-average molecular mass of less than or equal to 1 000 000, comprising a) a polymer skeleton containing hydrocarbon-based repeating units containing at least 20 one hetero atom, and b) optionally pendent and/or terminal fatty chains that are optionally functionalized, containing from 6 to 120 carbon atoms and being linked to these hydrocarbon-based units, in a cosmetic composition or for the manufacture of a 25 physiologically acceptable composition, in order to reduce the transfer and/or deposit of traces of a film of the said composition, applied to the keratin

materials, onto a support placed in contact with the said film and/or to improve the staying power of the said film and/or to obtain a non-sticky film.

62. Use according to the preceding claim,  
5 characterized in that the polymer is a polyamide comprising end groups containing an ester group comprising a hydrocarbon-based chain containing from 10 to 42 carbon atoms.